AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.-41. Canceled.

42. (New) A ceramic carrier capable of supporting a catalyst component directly on the surface of a ceramic substrate provided with a multitude of cells which are substantially parallel to each other with the inside thereof serving as a gas flow passage, wherein said cell wall has an irregular surface and wherein one or more constituent element of the ceramic substrate is substituted with an element other than the constituent element, and the carrier is made capable of supporting the catalyst component directly on the substituting element.

43. (New) The ceramic carrier according to claim 42, wherein said cell wall surface is corrugated or roughened.

44. (New) The ceramic carrier according to claim 43, wherein said corrugated surface has a pitch which is not larger than the length of the ceramic carrier.

45. (New) The ceramic carrier according to claim 43, wherein a pitch of said corrugated surface is 20 mm or less.

46. (New) The ceramic carrier according to claim 43, wherein a pitch of said corrugated surface is 5 mm or less.

47. (New) The ceramic carrier according to claim 43, wherein an amplitude of said corrugated surface is 1/2 of a cell pitch or smaller.

48. (New) The ceramic carrier according to claim 43, wherein an amplitude of said corrugated surface is in a range from 1/3 to 1/2 of a cell pitch.

49. (New) The ceramic carrier according to claim 42, wherein a plurality of projections are provided which protrude inward from said cell wall surface.

50. (New) The ceramic carrier according to claim 49, wherein a cross sectional area of said projection is $\leq$ 1/2 of an opening area of the cell.

51. (New) The ceramic carrier according to claim 49, wherein a cross sectional area of said projection is in a range from 1/20 to 1/3 of an opening area of the cell.

52. (New) The ceramic carrier according to claim 42, wherein said catalyst component is supported on the substituting element by a chemical bond.

53. (New) The ceramic carrier according to claim 42, wherein said substituting element is one or more element having d or f orbits in the electron orbits thereof.

54. (New) A ceramic carrier which has a multitude of pores capable of supporting a catalyst component directly on the surface of a ceramic substrate, wherein the catalyst component can be supported directly in the pores, the ceramic substrate being provided with a multitude of cells which are substantially parallel to each other with the inside thereof serving as a gas flow passage, wherein said cell wall has an irregular surface.

55. (New) The ceramic carrier according to clam 54, wherein said cell wall surface is corrugated or roughened.

56. (New) The ceramic carrier according to claim 55, wherein said corrugated surface has a pitch which is not larger than the length of the ceramic carrier.

57. (New) The ceramic carrier according to clam 55, wherein a pitch of said corrugated surface is 20 mm or less.

58. (New) The ceramic carrier according to claim 55, wherein a pitch of said corrugated surface is 5 mm or less.

59. (New) The ceramic carrier according to claim 55, wherein an amplitude of said corrugated surface is 1/2 of a cell pitch or smaller.

60. (New) The ceramic carrier according to claim 55, wherein an amplitude of said corrugated surface is in the range from 1/3 to 1/2 of a cell pitch.

61. (New) The ceramic carrier according to clam 54, wherein a plurality of projections are provided which protrude inward from said cell wall surface.

62. (New) The ceramic carrier according to claim 61, wherein a cross sectional area of said projection is $\leq$ 1/2 of an opening area of the cell.

63. (New) The ceramic carrier according to claim 61, wherein a cross sectional area of said projection is in a range from 1/20 to 1/3 of an opening area of the cell.

64. (New) The ceramic carrier according to claim 54, wherein said pores comprise at least one kind selected from among a group consisting of defects in the ceramic crystal lattice, microscopic cracks in the ceramic surface and missing defects of the elements which constitute the ceramic.

65. (New) The ceramic carrier according to claim 64, wherein a width of said microscopic cracks is 100 nm or less.

66. (New) The ceramic carrier according to claim 64, wherein said pores have a diameter or width 1000 times the diameter of the catalyst ion to be supported or smaller, and the density of said pores is 1×10^{11}/L or higher.

67. (New) The ceramic carrier according to claim 64, wherein said ceramic substrate includes cordierite as the main component, and said pores comprise defects formed by substituting a part of the constituent elements of the cordierite with metal element having a different valence value.

68. (New) The ceramic catalyst body according to claim 67, wherein said defects comprise at least one kind, an oxygen defect or a lattice defect, and the density of cordierite crystal which includes at least one defect in a unit crystal lattice of cordierite is set to 4×10^{-6}% or higher.

69. (New) A ceramic carrier capable of supporting a catalyst component directly on the surface of a ceramic substrate wherein a porosity of said ceramic substrate is 5% or higher and wherein one or more constituent element of the ceramic substrate is substituted with an element other than the constituent element, and the carrier is made of supporting the catalyst component directly on the substituting element.

70. (New) The ceramic carrier according to claim 69, wherein the porosity of said ceramic substrate is 10% or higher.

71. (New) The ceramic carrier according to claim 69, wherein the porosity of said ceramic substrate is 30% or higher.

72. (New) The ceramic carrier according to claim 69, wherein said catalyst component is supported on the substituting element by a chemical bond.

73. (New) The ceramic carrier according to claim 69, wherein said substituting element is one or more element having d or f orbits in the electron orbits thereof.

74. (New) A ceramic carrier which has a multitude of pores capable of supporting a catalyst component directly on the surface of a ceramic substrate wherein the catalyst component can be supported directly in the pores and wherein a porosity of said ceramic substrate is 5% or higher.

75. (New) The ceramic carrier according to claim 74, wherein the porosity of said ceramic substrate is 10% or higher.

76. (New) The ceramic carrier according to claim 74, wherein the porosity of said ceramic substrate is 30% or higher.

77. (New) The ceramic carrier according to claim 74, wherein said pores comprise at least one kind selected from among a group consisting of defects in the ceramic crystal lattice, microscopic cracks in the ceramic surface and missing defects of the elements which constitute the ceramic.

78. (New) The ceramic carrier according to claim 77, wherein a width of said microscopic cracks is 100 nm or less.

79. (New) The ceramic carrier according to claim 77, wherein said pores have a diameter or width 1000 times the diameter of the catalyst ion to be supported or smaller, and the density of said pores is 1×10^{11}/L or higher.

80. (New) The ceramic carrier according to claim 77, wherein said ceramic substrate includes cordierite as the main component, and said pores comprise defects formed by substituting a part of the constituent elements of the cordierite with metal element having a different valence value.

81. (New) The ceramic catalyst body according to claim 80, wherein said defects comprise at least one kind, an oxygen defect or a lattice defect, and the density of cordierite crystal which includes at least one defect in a unit crystal lattice of cordierite is set to 4×10^{-6}% or higher.

82. (New) A ceramic carrier capable of supporting a catalyst component directly on the surface of a ceramic substrate is provided with a multitude of cells which are substantially parallel to each other with the inside thereof serving as a gas flow passage, wherein density of the cells is 50/in^2 or higher, and wherein one or more constituent element of the ceramic substrate is substituted with an element other than the constituent element, and the carrier is made capable of supporting the catalyst component directly on the substituting element.

83. (New) The ceramic carrier according to claim 82, wherein said density of the cells is 100/in^2 or higher.

84. (New) The ceramic carrier according to claim 82, wherein said density of the cells is 400/in^2 or higher.

85. (New) The ceramic carrier according to claim 82, wherein said catalyst component is supported on the substituting element by a chemical bond.

86. (New) The ceramic carrier according to claim 82, wherein said substituting element is one or more element having d or f orbits in the electron orbits thereof.

87. (New) A ceramic carrier which has a multitude of pores capable of supporting a catalyst component directly on the surface of a ceramic substrate wherein the catalyst component can be supported directly in the pores, the ceramic substrate is provided with a multitude of cells which are substantially parallel to each other with the inside thereof serving as a gas flow passage, wherein density of the cells is 50/in^2 or higher.

88. (New) The ceramic carrier according to claim 87, wherein said density of the cells is 100/in^2 or higher.

89. (New) The ceramic carrier according to claim 87, wherein said density of the cells is 400/in^2 or higher.

90. (New) The ceramic carrier according to claim 87, wherein said pores comprise at least one kind selected from among a group consisting of defects in the ceramic crystal lattice, microscopic cracks in the ceramic surface and missing defects of the elements which constitute the ceramic.

91. (New) The ceramic carrier according to claim 90, wherein a width of said microscopic cracks is 100 nm or less.

92. (New) The ceramic carrier according to claim 90, wherein said pores have a diameter or width 1000 times the diameter of the catalyst ion to be supported or smaller, and the density of said pores is 1×10^{11}/L or higher.

93. (New) The ceramic carrier according to claim 90, wherein said ceramic substrate includes cordierite as the main component, and said pores comprise defects formed by substituting a part of the constituent elements of the cordierite with metal element having a different valence value.

94. (New) The ceramic catalyst body according to claim 93, wherein said defects comprise at least one kind, an oxygen defect or a lattice defect, and the density of cordierite crystal which includes at least one defect in a unit crystal lattice of cordierite is set to 4×10^{-6}% or higher.

95. (New) A ceramic carrier which has a multitude of cells disposed substantially parallel to each other with the inside thereof serving as a gas flow passage wherein one or more constituent element of the ceramic substrate is substituted with an element other than the constituent element, and the carrier is made capable of supporting the catalyst component directly on the substituting element, wherein a plurality of ceramic carriers capable of supporting a catalyst component directly on the surface of a ceramic substrate are disposed in series in the direction of the gas flow passage, and the cell walls of said plurality of ceramic carriers are disposed so as to be discontinuous at their joints.

96. (New) The ceramic carrier according to claim 95, wherein said catalyst component is supported on the substituting element by a chemical bond.

97. (New) The ceramic carrier according to claim 95, wherein said substituting element is one or more element having d or f orbits in the electron orbits thereof.

98. (New) A ceramic carrier which has a multitude of cells disposed substantially parallel to each other with the inside thereof serving as a gas flow passage, which has a multitude of pores capable of supporting the catalyst component directly on the surface of the ceramic substrate, wherein the catalyst component can be supported directly in the pores, wherein a plurality of ceramic carriers capable of supporting a catalyst component directly on the surface of a ceramic substrate are disposed in series in the direction of the gas flow passage, and the cell walls of said plurality of ceramic carriers are disposed so as to be discontinuous at their joints.

99. (New) The ceramic carrier according to claim 98, wherein said pores comprise at least one kind selected from among a group consisting of defects in the ceramic crystal lattice, microscopic cracks in the ceramic surface and missing defects of the elements which constitute the ceramic.

100. (New) The ceramic carrier according to claim 99, wherein a width of said microscopic cracks is 100 nm or less.

101. (New) The ceramic carrier according to claim 99, wherein said pores have a diameter or width 1000 times the diameter of the catalyst ion to be supported or smaller, and the density of said pores is 1×10^{11}/L or higher.

102. (New) The ceramic carrier according to claim 99, wherein said ceramic substrate includes cordierite as the main component, and said pores comprise defects formed by substituting a part of the constituent elements of the cordierite with metal element having a different valence value.

103. (Original) The ceramic catalyst body according to claim 102, wherein said defects comprise at least one kind, an oxygen defect or a lattice defect, and the density of cordierite crystal which includes at least one defect in a unit crystal lattice of cordierite is set to 4×10^{-6}% or higher.